SECTION 404 (2) (j) (ii) PERFORMANCE INDICATOR REPORTING REQUIREMENTS FY 2007

MICHIGAN MISSION-BASED PERFORMANCE INDICATOR SYSTEM, VERSION 6.0

October 1, 2005 Effective Date

The Michigan Mission-Based Performance Indicator System was first implemented in fiscal year 1997. Over the next eight years, the original list of indicators grew in number to 51. During the fiscal year 2004, the Michigan Department of Community Health (MDCH) and Quality Improvement Council measured the indicators against a set of criteria that asked: "Is the indicator...

- Ouantifiable
- Valid
- Reliable
- Sensitive to change
- Calibrated to standard
- Benefit/cost ratio positive
- Consistent with the system's values and mission
- Mandated by federal or state funders?"

The list of 51 shrunk to 12. Next considered were indicators developed by federal agencies and national associations. Finally, attempts were made to construct new indicators that might address concerns raised by the Mental Health Commission. When the proposed indicators were measured against the set of criteria, most failed to meet the test. The result is that 15 indicators were selected, approved by the QIC and MDCH, and the Contract and Financial Issues Committee of the Michigan Association of Community Mental Health Boards.

The indicators measure the performance of the CMHSPs for all persons with mental health and developmental disabilities served; the PIHPs for the Medicaid beneficiaries, including those Medicaid beneficiaries served through the auspices of the Substance Abuse Coordinating Agencies (CAs); or in some cases measure the performance of both. Since the indicators are a measure of performance, deviations from standards (where applicable) and negative statistical outliers may be addressed through contract action. Information from these 15 indicators will be published on the MDCH web site within 90 days of the close of the reporting period, following one opportunity for CMHSPs and PIHPs to make corrections.

Where possible, MDCH will use data from encounters, Quality Improvement (QI) or demographic information or Medicaid Utilization and Net Cost Reports, and CMHSP Subelement Cost Reports to calculate the indicators. However, most of the indicators will still require separate reporting by the CMHSPs and PIHPs. This year, for the first time, PIHPs are expected to report, where noted, on Medicaid beneficiaries who receive substance abuse services through sub-contracts with CAs or substance abuse providers. Those entities will not report performance indicators for their Medicaid beneficiaries separately to the state. CMHSPs and PIHPs must use the instructions herein to collect and calculate indicators and use quality control strategies to assure accurate reporting. The External Quality Review (EQR) process will annually validate the Medicaid indicators.

Additional measures, called "dashboard indicators" and "site review indicators" will be calculated from the above data sources and used within MDCH to track patterns or trends. MDCH may use the measures to follow-up with CMHSPs and PIHPs. However, those measures will not be published on the web site.

MDCH/DQMP: Revised 7/13/07

MICHIGAN MISSION-BASED PERFORMANCE INDICATOR SYSTEM, VERSION 6.0

Note: Indicators that can be constructed from encounter or quality improvement data or cost reports are marked with an *.

ACCESS DOMAIN

Definition of Access: the ease with which care can be initiated and maintained

Indicators:

- 1. The percent of children and adults receiving a pre-admission screening for psychiatric inpatient care for whom the disposition was completed within three hours.
 - a. Standard = 95% in three hours
 - b. Quarterly report
 - c. PIHP for all Medicaid beneficiaries
 - d. CMHSP for all consumers
- 2. The percent of new persons receiving a face-to-face assessment with a professional within 14 calendar days of a non-emergency request for service.
 - a. Standard = 95% in 14 days
 - b. Quarterly report
 - c. PIHP for all Medicaid beneficiaries
 - d. CMHSP for all consumers
 - e. Scope: MI adults, MI children, DD adults, DD children, and Medicaid SA
- 3. The percent of new persons starting any needed on-going service within 14 days of a non-emergent assessment with a professional.
 - a. Standard = 95% in 14 days
 - b. Quarterly report
 - c. PIHP for all Medicaid beneficiaries
 - d. CMHSP for all consumers
 - e. Scope: MI adults, MI children, DD adults, DD children, and Medicaid SA
- 4.a. The percent of discharges from a psychiatric inpatient unit who are seen for follow-up care within seven days.
 - a. Standard = 95%
 - b. Quarterly report
 - c. PIHP for all Medicaid beneficiaries
 - d. CMHSP for all consumers

Scope: All children and all adults (MI, DD) - Do not include dual eligibles (Medicare/Medicaid) in these counts.

- 4.b. The percent of discharges from a substance abuse detox unit who are seen for follow-up care within seven days.
 - a. Standard = 95%
 - b. Quarterly report

PIHP for all Medicaid beneficiaries - Do not include dual eligibles (Medicare/Medicaid) in these counts.

5. *The percent of Medicaid recipients having received PIHP managed services.

- a. Quarterly report (MDCH calculates from encounter data)
- b. PIHP for all Medicaid beneficiaries
- c. Scope: MI adults, MI children, DD adults, DD children, and SA
- 6. The percent of face-to-face assessment with professionals that result in decisions to deny CMHSP services.
 - a. Quarterly report
 - b. CMHSP
 - c. Scope: all MI/DD consumers
- 7. The percent of Section 705 second opinions that result in services.
 - a. Quarterly report
 - b. CMHSP
 - c. Scope: all MI/DD consumers

ADEQUACY/APPROPRIATENESS DOMAIN

<u>Definition of adequacy: the provision of the right services, in the right amounts, for the right duration of time, given the current state of knowledge</u>

Indicators:

- 8. *The percent of Habilitation Supports Waiver (HSW) enrollees during the quarter with encounters in data warehouse who are receiving at least one HSW service per month other than supports coordination.
 - a. Quarterly report (MDCH calculates from encounter data)
 - b. PIHP
 - c. Scope: HSW enrollees only

EFFICIENCY DOMAIN

<u>Definition of efficiency: the level of outcome achieved for a given level of resource expenditure, perhaps adjusted for case mix and severity</u>

Indicators:

- 9. *The percent of total expenditures spent on managed care administrative functions for CMHSP and PIHPs.
 - a. Annual report (MDCH calculates from cost reports)
 - b. PIHP for Medicaid administrative expenditures
 - c. CMHSP for all administrative expenditures

OUTCOMES DOMAIN

<u>Definition of outcomes: changes in a consumer's current or future health status, level of</u> functioning, quality of life, or satisfaction that can be attributed to the care provided

Indicators:

- 10. *The percent of adults with mental illness and the percent of adults with developmental disabilities served by CMHSPs and PIHPs who are in competitive employment.
 - a. Annual report (MDCH calculates from QI data)
 - b. PIHP for Medicaid adult beneficiaries
 - c. CMHSP for all adults
 - d. Scope: MI and DD consumers

- 11. *The percent of adults with mental illness and the percent of adults with developmental disabilities served by CMHSPs and PIHPs who earn minimum wage or more from employment activities (competitive, supported or self employment, or sheltered workshop).
 - a. Annual report (MDCH calculates from QI data)
 - b. PIHP for Medicaid adult beneficiaries
 - c. CMHSP for all adults
 - d. Scope: MI and DD consumers
- 12. The percent of children and adults readmitted to an inpatient psychiatric unit within 30 days of discharge.
 - a. Standard = 15% or less within 30 days
 - b. Quarterly report
 - c. PIHP for all Medicaid beneficiaries
 - c. CMHSP
 - d. Scope: All MI and DD children and adults Do not include dual eligibles (Medicare/Medicaid) in these counts.
- 13. The annual number of substantiated recipient rights complaints per thousand persons served, in the categories of Abuse I and II, and Neglect I and II.
 - a. Annual report
 - b. PIHP for Medicaid beneficiaries
 - c. CMHSP
 - d. Scope: MI and DD only
- 14. The semi-annual number of sentinel events per thousand Medicaid beneficiaries served (MI adults, MI children, persons with DD, HSW enrollees, Children's Waiver enrollees, and SA).
 - a. Semi-annual report
 - b. PIHP for Medicaid beneficiaries
 - c. CMHSP for Children's Waiver beneficiaries
 - d. Scope: MI, DD and SA children and adults
- 15. The number of suicides per thousand persons served (MI, DD).
 - a. Annual report
 - b. CMHSP
 - c. Scope: MI and DD children and adults

PERFORMANCE INDICATOR REPORTING DUE DATES

FY 2007 Due Dates

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Indicator Title	Period	Due	Period	Due	Period	Due	Period	Due	From
1. Pre-	10/01 to	4/2/07	1/01 to	7/2/07	4/01 to	10/1/07	7/01 to	12/31/07	CMHSPs
admission	12/31	(3/31 is a	3/31	(6/30 is a	6/30	(9/30 is a	9/30		PIHPs
screen		Saturday)		Saturday)		Sunday)			
2. 1 st request	10/01 to	4/2/07	1/01 to	7/2/07	4/01 to	10/1/07	7/01 to	12/31/07	CMHSPs
1	12/31	(3/31 is a	3/31	(6/30 is a	6/30	(9/30 is a	9/30		PIHPs
ot.	- 10 1	Saturday)		Saturday)		Sunday)		10/01/05	
3. 1 st service	10/01 to	4/2/07	1/01 to	7/2/07	4/01 to	10/1/07	7/01 to	12/31/07	CMHSPs
	12/31	(3/31 is a Saturday)	3/31	(6/30 is a Saturday)	6/30	(9/30 is a Sunday)	9/30		PIHPs
4. Follow-up	10/01 to	4/2/07	1/01 to	7/2/07	4/01 to	10/1/07	7/01 to	12/31/07	CMHSPs
1	12/31	(3/31 is a	3/31	(6/30 is a	6/30	(9/30 is a	9/30		PIHPs
	10/04	Saturday)	1/04	Saturday)	1/01	Sunday)	7 /04	27/4	
5. Medicaid	10/01 to	N/A	1/01 to	N/A	4/01 to	N/A	7/01 to	N/A	N/A
penetration*	12/31	4/0/07	3/31	7/0/07	6/30	10/1/07	9/30	12/21/07	C) (HC)
6. Denials	10/01 to	4/2/07 (3/31 is a	1/01to	7/2/07 (6/30 is a	4/01 to	10/1/07 (9/30 is a	7/01 to	12/31/07	CMHSPs
	12/31	Saturday)	3/31	Saturday)	6/30	Sunday)	9/30		
7. 2 nd	10/01 to	4/2/07	1/01 to	7/2/07	4/01 to	10/1/07	7/01 to	12/31/07	CMHSPs
Opinions	12/31	(3/31 is a	3/31	(6/30 is a	6/30	(9/30 is a	9/30		
1		Saturday)		Saturday)		Sunday)			
8. HSW	10/01 to	N/A	1/01 to	N/A	4/01 to	N/A	7/01 to	N/A	N/A
services*	12/31		3/31		6/30		9/30		
9. Admin.	10/01 to	1/31/08							CMHSPs
Costs*	9/30								PIHPs
10.	10/01 to								CMHSPs
Competitive	9/30								PIHPs
employment									
*	10/01								C) (HCD
11.	10/01 to								CMHSPs
Minimum	9/30								PIHPs
wage*	10/01 to	4/2/07	1/01 to	7/2/07	4-01 to	10/1/07	7/01 to	12/31/07	CMHSPs
Readmissions	12/31	(3/31 is a	3/31	(6/30 is a	6-30	(9/30 is a	9/30	12/31/07	PIHPs
Readinissions		Saturday)	3/31	Saturday)	0-30	Sunday)	9/30		111115
13. RR	10/01 to	12/31/07							CMHSPs
complaints	9/30								PIHPs
14. Sentinel	10/01 to	7/2/07	4/01 to	12/31/07					CMHSPs**
Events	3/31	(6/30 is a	9/30						PIHPs
15. Suicides	10/01 to	Saturday) 12/31/07							CMHSPs
13. Buildides	9/30	12/31/07							CIVILIDIS
L	7130					L	1	l	L

^{*}Indicators with *: MDCH collects data from encounters, quality improvement or cost reports and calculates performance indicators

**CMHSPs must report sentinel events for Children's Waiver recipients only			
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PERFORMANCE INDICATOR CODEBOOK

General Rules for Reporting Performance Indicators

1. Due dates

All data are due **90 days** following the end of the reporting period (Note: reporting periods are 90 days, six months, or 12 months).

Consultation drafts will be issued for editing purposes approximately two weeks after the due date.

Final report will be posted on the MDCH web site approximately 30 days following the due date.

2. Children

Children are counted as such who are less than age 18 on the last day of the reporting period.

3. <u>Dual Eligible</u>

Do not include those individuals who are Medicare/Medicaid dual eligible in indicators number 4a & 4b (Follow-up Care) and number 12 (Readmissions).

4. Medicaid

Count as Medicaid eligible any person who qualified as a Medicaid beneficiary during at least one month of the reporting period. Indicators # 1, 2, 3, 4, 12, 13 and 14 are to be reported by the CMHSPs for all their consumers, and by the PIHPs for all their Medicaid beneficiaries. If a PIHP is an affiliation, the PIHP reports these indicators for all the Medicaid beneficiaries in the affiliation. The PIHPs, therefore, will submit two reports: One, as a CMHSP for all its consumers, and one as the PIHP for all its Medicaid beneficiaries.

5. Substance abuse beneficiaries

Indicators #2, 3, 4, 5 and 14 include persons receiving Medicaid substance abuse services managed by the PIHP (this is not applicable to CMHSPs). Managed by the PIHP includes substance abuse services subcontracted to CAs, as well as any substance abuse services that the PIHP may deliver directly or may subcontract directly with a substance abuse provider. Consumers who have co-occurring mental illness and substance use disorders may be counted by the PIHP as either MI or SA. However, please count them only once. **Do not add the same consumer to the count in both the MI and SA categories.**

6. Documentation

It is expected that CMHSPs and PIHPs will maintain documentation of:

- a) persons counted in the "exception" columns on the applicable indicators who, why, and source documents; and
- b) start and stop times for timeliness indicators.

Documentation may be requested and reviewed during external quality reviews.

ACCESS -TIMELINESS/INPATIENT SCREENING (CMHSP & PIHP)

Indicator #1

The percentage of persons during the quarter receiving a pre-admission screening for psychiatric inpatient care for whom the disposition was completed within three hours (by two sub-populations: Children and Adults). Standard = 95%

Rationale for Use

People who are experiencing symptoms serious enough to warrant evaluation for inpatient care are potentially at risk of danger to themselves or others. Thus, time is of the essence. This indicator assesses whether CMHSPs and PIHPs are meeting the Department's standard that 95% of the inpatient screenings have a final disposition within three hours. This indicator is a standard measure of access to care.

Table 1

1. Population	2. Number (#) of Emergency Referrals for Inpatient Screening During the Time Period	3. Number (#) of Dispositions about Emergency Referrals Completed within Three Hours or Less	4. Percent (%) of Emergency Referrals Completed within the Time Standard
1. # Children			
2. # Adults			

Definitions and Instructions

"Disposition" means the decision was made to refer, or not refer, to inpatient psychiatric care.

- 1. If screening is not possible due to intoxication or sedation, do not start the clock.
- 2. Start time: When the person is clinically, medically and physically available to the CMHSP/PIHP.
 - a. When emergency room or jail staff informs CMHSP/PIHP that individual needs, and is ready, to be assessed; or
 - b. When an individual presents at an access center and then is clinically cleared (as needed).
- 3. Stop time: Clinician (in access center or emergency room) who has the authority, or utilization management unit that has the authority, makes the decision whether or not to admit.
- 4. After the decision is made, the clock stops but other activities will continue (screening, transportation, arranging for bed, crisis intervention).
- 5. Documentation of start/stop times needs to be maintained by the PIHP/CMHSPS.

ACCESS-TIMELINESS/FIRST REQUEST (CMHSP & PIHP)

Indicator #2

The percentage of new persons during the quarter receiving a face-to-face assessment with a professional within 14 calendar days of a non-emergency request for service (by five sub-populations: MI-adults, MI-children, DD-adults, DD-children, and persons with Substance Use Disorders). Standard = 95%

Rationale for Use

Quick, convenient entry into the public mental health system is a critical aspect of accessibility of services. Delays in clinical and psychological assessment may lead to exacerbation of symptoms and distress and poorer role functioning. The amount of time between a request for service and clinical assessment with a professional is one measure of access to care.

Table 2

1.	2.	3.	4.	5.	6.
Population	# of New Persons	# of New Persons	# Net of New Persons	# of Persons from Col 4	% of Persons
	Receiving an Initial Non- Emergent Professional Assessment	from Col 2 who are Exceptions	Receiving an Initial Assessment (Col 2 minus Col 3)	Receiving an Initial Assessment within 14 calendar days	Receiving an Initial Assessment within 14 calendar
	Following a First Request		Cors	of First Request	days of First Request
1. MI - C					Calculated
2. MI - A					Calculated
3. DD - C					Calculated
4. DD - A					Calculated
5. SA					Calculated
6. TOTAL					Calculated

Column 2- Selection Methodology

- 1. Cases selected for inclusion in <u>Column 2</u> are those for which a **face-to-face** assessment with a professional resulting in a decision whether to provide on-going CMHSP/PIHP services <u>took place during the time period.</u>
- 2. Non-emergent assessment and services do not include pre-admission screening for, and receipt of, psychiatric in-patient care; nor crisis contacts that did not result in an assessment. Consumers who come in with a crisis, and are stabilized are counted as "new" for indicator #2 when they subsequently request a non-emergent assessment.
- 3. Persons with co-occurring disorders should only be counted once, in either the MI or SA row.

- 4. "New person:" Individual who has never received services at the CMHSP/PIHP or whose last date of service (regardless of service) was 90 or more days before the assessment, or whose case was closed 90 or more days before the assessment. As noted above in item 2, consumers who come in with a crisis, and are stabilized are counted as "new" for indicator #2 when they subsequently request a non-emergent assessment.
- 5. A "professional assessment" is that face-to-face assessment or evaluation with a professional designed to result in a decision whether to provide ongoing CMHSP service.
- 6. Consumers covered under OBRA should be excluded from the count.

Column 3- Exception Methodology

Enter the number of consumers who request an appointment outside the 14 calendar day period or refuse an appointment offered that would have occurred within the 14 calendar day period.

CMHSP/PIHP must maintain documentation available for state review of the reasons for exclusions and the dates offered to the individual. In the case of refused appointments, the dates offered to the individual must be documented.

Column 4 - Calculation of Denominator

Subtract the number of persons in column 3 from the number of persons in column 2 and enter the number.

Column 5 – Numerator Methodology

- 1. Cases selected for inclusion in Column 5 are those in Column 4 for which the assessment took place in 14 calendar days.
- 2. "First request" is the initial telephone or walk-in request for non-emergent services by the individual, parent of minor child, legal guardian, or referral source that results in the scheduling of a face-to-face assessment with a professional.
- 3. Count backward to the date of first request, even if it spans a quarter. If the assessment required several sessions in order to be completed, use the first date of assessment for this calculation.
- 4. "Reschedules" because consumer cancelled or no-shows who reschedule: count the date of request for reschedule as "first request."

ACCESS-TIMELINESS/FIRST SERVICE (CMHSP & PIHP)

Indicator #3

Percentage of new persons during the quarter starting any needed on-going service within 14 days of a non-emergent face-to-face assessment with a professional ((by five sub-populations: MI-adults, MI-children, DD-adults, DD-children, and persons with Substance Use Disorders). Standard = 95% within 14 days

Rationale for Use

The amount of time between professional assessment and the delivery of needed treatments and supports addresses a different aspect of access to care than Indicator #2. Delay in the delivery of needed services and supports may lead to exacerbation of symptoms and distress and poorer role functioning.

Table 3

1 able 5					
1.	2.	3.	4.	5.	6.
Population	# of New	# of New	# Net of	# of Persons	% of
_	Persons	Persons	Persons who	From Col 4	Persons
	Who	From Col 2	Started	Who Started a	Who Started
	Started	Who are	Service	Face-to-Face	Service
	Face-to-	Exceptions	(Col 2 minus	Service Within	within 14
	Face		Col 3)	14 Days of a	days of
	Service			Face-to-Face	Assessment
	During the			Assessment	
	Period			with a	
				Professional	
1. MI-C					
1.1/11					Calculated
2. MI-A					Calculated
3. DD -C					Calculated
4. DD-A		-			Calculated
4. DD-A		-			
5. SA					Calculated
5. SA					Coloulated
6. TOTAL					Calculated

Column 2 - Selection Methodology

- 1. Cases selected for inclusion are those for which the start of a non-emergent service (other than the initial assessment see below) took place during the time period.
- 2. Do not include pre-admission screening for, and receipt of, psychiatric in-patient care or crisis contacts that did not result in a non-emergent assessment.
- 3. Persons with co-occurring disorders should only be counted once, in either the MI or SA
- 4. Consumers covered under OBRA should be excluded from the count.

Column 3 – Exception Methodology

Enter in column 3 the number of individuals counted in column 2 but for specific reasons described below* should be excluded from the indicator calculations.

*Consumers who request an appointment outside the 14 calendar day period or refuse an appointment offered that would have occurred within the 14 calendar day period, or do not show for an appointment or reschedule it.

*Consumers for whom the intent of service was medication only or respite only and the date of service exceeded the 14 calendar days. May also exclude environmental modifications where the completion of a project exceeds 14 calendar days. It is expected, however, that minimally a request for bids/quotes has been issued within 14 calendar days of the assessment. Lastly, exclude instances where consumer is enrolled in school and is unable to take advantage of services for several months.

CMHSP/PIHP must maintain documentation available for state review of the reasons for exclusions and the dates offered to the individual. In the case of refused appointments, the dates offered to the individual must be documented.

Column 4 - Calculation of Denominator

Subtract the number of persons in column 3 from the number of persons in column 2 and enter the number.

Column 5 – Numerator Methodology

- 1. Cases selected for inclusion in Column 5 are those in Column 4 for which a service was received within 14 calendar days of the professional face-to-face assessment.
- 2. "Service" means <u>any</u> face-to-face CMHSP service. For purposes of this data collection, the initial face-to-face assessment session or any continuous assessment sessions needed to reach a decision on whether to provide ongoing CMHSP services shall not be considered the start of service.
- 3. Count backward from the date of service to the first date of assessment, even if it spans a quarter, in order to calculate the number of calendar days to the assessment with the professional. If the initial assessment required several sessions in order to be completed, use the first date of assessment in this calculation.

MDCH/DQMP: Revised 7/13/07

ACCESS-CONTINUITY OF CARE (CMHSP & PIHP)

Indicator #4a (CMHSP & PIHP) & 4b (PIHP Only)

The percentage of discharges from a psychiatric inpatient unit during the quarter that were seen for follow-up care within 7 days. Standard = 95%

Rationale for Use

When responsibility for the care of an individual shifts from one organization to another, it is important that services remain relatively uninterrupted and continuous. Otherwise, the quality of care and consumer outcomes may suffer. This is an indicator required by the federal Substance Abuse and Mental Health Services Administration.

Table 4a

					
1.	2.	3.	4.	5.	6.
Population	# of	# of	# Net	# of Discharges	% of Persons
	Discharges	Discharges	Discharges	from Col 4	discharged
	from a	from Col 2	(Col 2 minus	Followed up by	seen within 7
	Psychiatric	that are	Col 3)	CMHSP/PIHP	days
	Inpatient	Exceptions	, '	within 7days	
	Unit				
1. # of Children					Calculated
2. # of Adults					Calculated

Column 2 - Selection Methodology

- 1. "Discharges" are the <u>events</u> involving people who are discharged from a Psychiatric Inpatient Unit (community, IMD or state hospital) who meet the criteria for specialty mental health services and are the responsibility of the CMHSP/PIHP for follow-up services. In the event of multiple discharges of one person during the reporting period, count the number of discharges.
- 2. Pre-admission screening for psychiatric in-patient care; and the psychiatric in-patient care should not be counted here.
- 3. Do not include dual eligibles (Medicare/Medicaid) in these counts.

Column 3 – Exception Methodology

- 1. Consumers who request an appointment outside the seven-day period or refuse an appointment offered that would have occurred within the seven calendar day period, or do not show for an appointment or reschedule it.
- 2. Consumers who choose not to use CMHSP/PIHP services.

CMHSP/PIHP must maintain documentation available for state review of the reasons for all exclusions. In the case of refused appointments, the dates offered to the individual must be documented.

Column 4- Calculation of denominator

Subtract the number of discharges in column 3 from the number of discharges in column 2 and enter the number.

Column 5- Numerator Methodology

- 1. Enter the number of discharges from column 4 (net) who were seen for follow-up care by the CMHSP/PIHP within seven days.
- 2. "Seen for follow-up care," means a face-to-face service (not screening for inpatient service, or the inpatient service) with a professional (not exclusively psychiatrists).
- 3. "Days" mean calendar days.

Table 4b - PIHP Only

1. Population	2. # of Discharges from a Substance Abuse Detox Unit	3. # of Discharges from Col 2 that are Exceptions	4. # Net Discharges (Col 2 minus Col 3)	5. # of Discharges from Col 4 Followed up by CA/CMHSP/ PIHP within 7days	6. % of Persons discharged seen within 7 days
# of Consumers					Calculated

Column 2 – Selection Methodology

- 1. "Discharges" are the <u>events</u> involving consumers with substance use disorders who were discharged from a sub-acute detoxification unit, who meet the criteria for specialty mental health services and are the responsibility of the CA/PIHP or CMHSP/PIHP for follow-up services. In the event of multiple discharges of one person during the reporting period, count the number of discharges.
- 2. Do not include dual eligibles (Medicare/Medicaid) in these counts.

Column 3 – Exception Methodology

- 1. Consumers who request an appointment outside the seven-day period or refuse an appointment offered that would have occurred within the seven calendar day period, or do not show for an appointment or reschedule it.
- 2. Consumers who choose not to use CA/CMHSP/PIHP services.

CA/PIHP or CMHSP/PIHP must maintain documentation available for state review of the reasons for all exclusions. In the case of refused appointments, the dates offered to the individual must be documented.

Column 4- Calculation of denominator

Subtract the number of discharges in column 3 from the number of discharges in column 2 and enter the number.

Column 5- Numerator Methodology

- 1. Enter the number of discharges from column 4 (net) who were seen for follow-up care by the CA/PIHP or CMHSP/PIHP within seven days.
- 2. Seen for follow-up care," means a face-to-face service with a substance abuse professional.
- 3. "Days" mean calendar days.

ACCESS: MEDICAID PENETRATION RATE

Indicator #5

The percent of Medicaid recipients having received PIHP managed services.

Rationale for Use:

This indicator measures the penetration rate of Medicaid recipients who receive mental health services from the public mental health system. This indicator is required by Centers for Medicare and Medicaid Services.

Method of Calculation

MDCH will calculate this indicator quarterly using encounter data.

<u>Numerator</u>: the number of Medicaid eligibles receiving at least one PIHP managed Medicaid service during the quarter.

<u>Denominator</u>: the number of Medicaid eligibles for which the PIHP was paid during the quarter.

ACCESS-DENIAL/APPEAL (CMHSP Only)

Indicator #6

Percentage of face-to-face assessments with professionals during the quarter that result in denials.

Indicator #7

Percentage of Section 705 second opinions that result in services.

Rationale for Use

As managed care organizations, CMHSPs are responsible for exercising appropriate control of entry into the public mental health system. The professional assessment represents one of the first opportunities for a CMHSP to control access to its non-emergent services and supports.

Table 5

1. Total # of New Persons Receiving an Initial Non- Emergent Face-to- Face Professional Assessment	2. Total # of Persons Assessed but Denied CMHSP Service	3. Total # of Persons Requesting Second Opinion	4. Total # of Persons Receiving Mental Health Service Following a Second Opinion

Note: Do not include in any column in Table 5 individuals who only received telephone screens or access center screens performed by non-professionals. Table 5 <u>excludes</u> those cases in which the individual refused CMHSP services that were authorized.

Definitions

Section 330.1705 of Public Act 1974 as revised, was intended to capture requests for <u>initial entry</u> into the CMHSP. Requests for changes in the levels of care received are governed by other sections of the Code.

"Professional Assessment" is that face-to-face meeting with a professional that results in an admission to ongoing CMHSP service or a denial of CMHSP service.

Methodology

Column 1: Enter the number of those people who received an initial <u>face-to-face</u> professional assessment during the time period (from Indicator #2, Column #2).

Column 2: Enter the number of people who were denied CMHSP services.

Column 3: Enter the number of people who were denied who requested a second opinion.

Column 4: Enter the number of people who received a mental health service as a result of the second opinion.

ADEQUACY/APPROPRIATENESS

Indicator #8

The percent of Habilitation Supports Waiver (HSW) enrollees in the quarter who received at least one HSW service each month <u>other than supports coordination</u>.

Rationale for Use

People enrolled in the HSW are among the most severely disabled people served by the public mental health system. If it were not for the waiver services supporting these people in the community, they would require services in an ICF/MR. Therefore, it is expected that the services provided to them in the community are adequate to meet their needs.

Method of Calculation

MDCH will calculate this indicator quarterly using encounter data.

<u>Numerator</u>: the number of HSW enrollees receiving at least one HSW service each month other than supports coordination each month.

Denominator: the number of HSW enrollees.

This indicator should not be interpreted to mean that each HSW enrollee must receive a Supports Coordination contact each month.

EFFICIENCY

Indicator #9

The percent of total expenditures spent on managed care administrative functions annually by CMHSPs and PIHPs.

Rationale for Use

There is public interest in knowing what portion of an agency's total expenditures are spent on operating the agency relative to the cost of providing services. Combined with other indicators of performance, information on percentage spent on administrative costs can be used as an indication of the agency's overall efficiency.

Method of Calculation

MDCH will calculate this indicator using CMHSP Total Sub-Element Cost Report and the PIHP Medicaid Utilization and Net Cost Report.

<u>Numerator</u>: the amount of expenditures for managed care administration as defined in the cost reports for the functions as defined in the document: "Establishing Managed Care Administrative Costs" Revised June 20, 2005.

<u>Denominator</u>: the amount of total expenditures from all funding sources for CMHSPs; and the amount of total Medicaid expenditures for PIHPs.

OUTCOMES: EMPLOYMENT

Indicator #10a,b

The percent of (a) adults with mental illness, and the percent of (b) adults with developmental disabilities, served by the CMHSPs and PIHPs who are employed competitively.

Rationale for Use

A positive outcome of improved functioning and recovery is the ability to work in a job obtained through competition with candidates who may not have disabilities. While there are variables, like unemployment rates, that the CMHSP and PIHPs cannot control, it is expected that through treatment and/or support they will enable and empower individuals who want jobs to secure them.

Method of Calculation

MDCH will calculate this indicator after the end of the fiscal year using employment data from the individual's most recent QI record.

CMHSP Indicator

<u>Numerator</u>: the total number of (a) adults with mental illness, and the total number of (b) adults with developmental disabilities, who are employed competitively.

<u>Denominator</u>: the total number of (a) adults with mental illness, and the total number of (b) adults with developmental disabilities, served by the CMHSP.

PIHP Indicator

<u>Numerator</u>: the total number of (a) adult Medicaid beneficiaries with mental illness, and the total number of (b) adult Medicaid beneficiaries with developmental disabilities, who are employed competitively.

<u>Denominator</u>: the total number of (a) adult Medicaid beneficiaries with mental illness, and the total number of (b) adult Medicaid beneficiaries with developmental disabilities, served by the PIHP.

OUTCOMES: EMPLOYMENT

Indicator #11a,b

The percent of (a) adults with mental illness, and the percent of (b) adults with developmental disabilities, served by the CMHSPs and PIHPs who earned minimum wage or more from any employment activities.

Rationale for Use

A positive outcome of improved functioning and recovery is the ability to earn an income that enables individuals the independence to purchase goods and services and pay for housing.

Method of Calculation

MDCH will calculate this indicator after the end of the fiscal year using employment data from the individual's most recent QI record. A new minimum wage data element will be added to the FY '06 reporting requirements.

CMHSP Indicator

<u>Numerator</u>: the total number of (a) adults with mental illness, and the total number of (b) adults with developmental disabilities, who received minimum wage or more from employment activities (competitive, supported or self-employment, or sheltered workshop).

<u>Denominator</u>: the total number of (a) adults with mental illness, and the total number of (b) adults with developmental disabilities served by the CMHSP.

PIHP Indicator

<u>Numerator</u>: the total number of (a) adult Medicaid beneficiaries with mental illness, and the total number of (b) adult Medicaid beneficiaries with developmental disabilities, who received minimum wage or more from employment activities (competitive, supported or self-employment, or sheltered workshop).

<u>Denominator</u>: the total number of (a) adult Medicaid beneficiaries with mental illness, and the total number of (b) adult Medicaid beneficiaries with developmental disabilities served by the PIHP.

OUTCOME: INPATIENT RECIDIVISM (CMHSP & PIHP)

Indicator # 12:

The percentage of readmissions of children and adults during the quarter to an inpatient psychiatric unit within 30 days of discharge. Standard = 15% or less

Rationale for Use

For some people with mental illness, the occasional use of psychiatric inpatient care is essential. However, rapid readmission following discharge may suggest that people were prematurely discharged or that the post discharge follow-up was not timely or sufficient. This indicator assessed whether CMHSPs are meeting the Department's standard of no more than 15 percent of people discharged from inpatient units are being readmitted within 30 days.

Table 6

1.	2.	3.	4.	5.	6.
Population	# of	# of Discharges	# Net	# of Discharges	% of
	Discharges	in Col 2 that are	Discharges	(from Net Col.	Discharges
	from	Exceptions	(Col 2 minus	4) Readmitted to	Readmitted
	Psychiatric		Col 3)	Inpatient Care	to Inpatient
	Inpatient			within 30 Days	Care within
	Care during			of Discharge	30 days of
	the Reporting				Discharge
	Period				
1. # of					Calculated
Children					
					Calculated
2. # of Adults					Calculated

NOTE: This information is intended to capture Admissions and Readmissions, <u>not transfers</u> to another psychiatric unit, or transfers to a medical inpatient unit. Do not include transfers or dual-eligibles (Medicare/Medicaid) in the counts in any column on this table.

Column 2 – Selection Methodology

- 1. Discharges" are the <u>events</u> involving all people (for the CMHSPs) and Medicaid eligibles only (for the PIHPs) who are discharged from a Psychiatric Inpatient Unit (community, IMD or state hospital), who meet the criteria for specialty mental health services and are the responsibility of the CMHSP for follow-up services. In the event of multiple discharges of one person during the reporting period, count the total number of discharges.
- 2. Do not include dual eligibles (Medicare/Medicaid) in these counts.

Column 3 – Exception Methodology

Enter the discharges who chose not to use CMHSP/PIHP services

CMHSP/PIHP must maintain documentation available for state review of the reasons for exceptions in column 3.

Column 4 – Calculation of Denominator

Subtract the number of discharges in column 3 from the number of discharges in column 2 and enter the number.

Column 5 – Numerator Methodology

- 1. Enter the number of persons from column 4 who were readmitted to a psychiatric inpatient unit within 30 days of discharge from a psychiatric inpatient unit.
- 2. In order to obtain correct counts for column 5, you must look 30 days into the **next quarter** for possible readmissions of persons discharged toward the end of the current reporting period.
- 3. "Days" mean calendar days.

OUTCOMES: RECIPIENT RIGHTS COMPLAINTS (CMHSPs & PIHPs)

Indicator #13

The **annual** number of substantiated recipient rights complaints in the categories of Abuse I and II, and Neglect I and II per 1,000 persons served by CMHSPs and by PIHPs.

Rationale for Use

Substantiated rights complaints are a measure of the quality of care provided by CMHSPs and managed by PIHPs. Since Abuse and Neglect complaints must be investigated, it is believed that these four categories represent the most serious allegations filed on behalf of people served.

Table 7a. Recipient Rights Complaints from Medicaid Beneficiaries (reported by PIHPs)

RR Complaints	1.	2.	3.
	# of Complaints	# of Complaints	# of Complaints
	from Medicaid	Substantiated by	Substantiated Per
	Beneficiaries	ORR	Thousand Medicaid
			Beneficiaries Served
Abuse I			
Abuse II			
Neglect I			
Neglect II			

Table 7b. Recipient Rights Complaints from All Consumers Served by the CMHSP (reported by CMHSPs)

RR Complaints	1.	2.	3.
- .	# of Complaints	# of Complaints	# of Complaints
	from All	Substantiated by	Substantiated Per
	Consumers	ORR	Thousand CMHSP
			Consumers Served
Abuse I			
Abuse II			
Neglect I			_
Neglect II			

Instructions:

Column 1: Enter the number of complaints from all consumers in each of the above categories that were filed at the local Office(s) of Recipient Rights during the year.

Column 2: Enter the number of those complaints that were substantiated by the local ORRs.

Column 3: MDCH will calculate the number of complaints per thousand persons served.

OUTCOME: SENTINEL EVENTS (PIHP)

Indicator #14a

Number of sentinel events during the **six-month period** per thousand **Medicaid beneficiaries** served, by population: adults with mental illness, children with mental illness, and persons with developmental disabilities not on the Habilitation Supports Waiver, persons on the Habilitation Supports Waiver, and **persons with substance use disorder.**

Rationale for Use

Sentinel events are required by the Centers for Medicaid and Medicaid Services to be reported for Medicaid beneficiaries served by the 1915(b) or managed care waiver and the 1915(c) or Habilitation Supports Waiver. It is a measure of how well the PIHP and its contracted providers monitor the care of vulnerable service recipients.

Table 8a Adults with Mental Illness

	Category of Sentinel Event (SE)	# of SEs	# of SEs investigated	# of SEs for which action was taken
1.	Death of recipient			
2.	Injuries requiring emergency room visits and/or admissions to hospitals			
3.	Physical illness requiring admissions to hospitals			
4.	Arrest of recipients			
5.	Conviction of recipients			
6.	Serious challenging behaviors			
7.	Medication errors			

Table 8b. Children with Mental Illness or Severe Emotional Disturbance

	Category of Sentinel Event (SE)	# of SEs	# of SEs investigated	# of SEs for which action was taken
1.	Death of recipient			
2.	Injuries requiring emergency room visits and/or admissions to hospitals			
3.	Physical illness requiring admissions to hospitals			
4.	Arrest of recipients			

5.	Conviction of recipient		
6.	Serious challenging behaviors		
7.	Medication errors		

Table 8c. Persons with Developmental Disabilities not on the Habilitation Supports Waiver

	Category of Sentinel Event (SE)	# of SEs	# of SEs investigated	# of SEs for which action was taken
1.	Death of recipient			
2.	Injuries requiring emergency room visits and/or admissions to hospitals			
3.	Physical illness requiring admissions to hospitals			
4.	Arrest of recipients			
5.	Conviction of recipients			
6.	Serious challenging behaviors			
7.	Medication errors			

Table 8d.Persons on the Habilitation Supports Waiver at the time of the event

	Category of Sentinel Event (SE)	# of SEs	# of SEs investigated	# of SEs for which action was taken
1.	Death of recipient			
2.	Injuries requiring emergency room visits and/or admissions to hospitals			
3.	Physical illness requiring admissions to hospitals			
4.	Arrest of recipients			
5.	Conviction of recipients			
6.	Serious challenging behaviors			
7.	Medication errors			

Table 8e. Persons receiving substance abuse services at the time of the event

	Category of Sentinel Event (SE)	# of SEs	# of SEs investigated	# of SEs for which action was taken
1.	Death of recipient			
2.	Injuries requiring emergency room visits and/or admissions to hospitals			
3.	Physical illness requiring admissions to hospitals			
4.	Arrest of recipients			
5.	Conviction of recipients			
6.	Serious challenging behaviors			
7.	Medication errors			

Definitions

"Sentinel Event" is an "unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof. Serious injury specifically includes loss of limb or function. The phrase, 'or the risk thereof' includes any process variation for which a recurrence would carry a significant chance of a serious adverse outcome." (JCAHO, 1998)

- "Injuries" that require emergency room visits or admissions to hospitals include those resulting from abuse or accidents.
- "Serious challenging behaviors" include property damage, attempts at self-inflicted harm or harm to others, or unauthorized leaves of absence.
- "Medication Errors" mean a) wrong medication; b) wrong dosage; c) double dosage; or d) missed dosage. It does not include instances in which consumers have refused medication.
- "Persons with substance use disorder," or persons receiving substance abuse services, are those Medicaid beneficiaries who receive substance abuse services managed by the PIHP, including any that are sub-contracted through the CAs.

Notes

- 1. Reporting is **required** for Medicaid beneficiaries who, at the time of the event, were the responsibility of the PIHP and 1) living in 24-hour Specialized Residential settings (per the Administrative Rule R330.1801-09) or in Child-Caring Institutions; 2) living in their own homes receiving Community Living Supports; 3) receiving Targeted Case Management, ACT, Home-Based, Wraparound or Habilitation Supports Waiver Services; or 4) residing in a substance abuse residential treatment program.
- 2. Accidents treated at medi-centers and urgent care clinics/centers should be included in the injury reporting along with those treated in emergency rooms. In many communities in the state where hospitals do not exist, medi-centers and urgent care clinics/centers are used in place of emergency rooms.
- 3. Planned surgeries, whether outpatient or inpatient, are not considered unexpected occurrences MDCH/DOMP: Revised 7/13/07

and therefore are not included in the reporting of illnesses requiring admissions to hospitals.

- 4. Report arrests and convictions as separate incidents.
- 5. All arrests and convictions should be report as a sentinel event so long as the person falls in the reportable population.

OUTCOME: SENTINEL EVENTS (CMHSP only)

Indicator #14b:

Number of sentinel events during the six month period per thousand Children's Medicaid Waiver beneficiaries served, by population.

Rationale for Use

Sentinel events are required by the Centers for Medicaid and Medicaid Services to be reported for Medicaid beneficiaries served by the 1915(c) Children's Waiver. It is a measure of how well the CMHSP and its contracted providers monitor the care of vulnerable service recipients.

Table 9. Children enrolled in the Children's Waiver

	Category of Sentinel Event (SE)	# of SEs	# of SEs investigated	# of SEs for which action was taken
1.	Death of recipient			
2.	Injuries requiring emergency room visits and/or admissions to hospitals			
3.	Physical illness requiring admissions to hospitals			
4.	Arrest of recipients		_	
5.	Conviction of recipients			
6.	Serious challenging behaviors			
7.	Medication errors			

Definitions

- "Sentinel Event" is an "unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof. Serious injury specifically includes loss of limb or function. The phrase, 'or the risk thereof' includes any process variation for which a recurrence would carry a significant chance of a serious adverse outcome." (JCAHO, 1998)
- "Injuries" that require emergency room visits or admissions to hospitals include those resulting from abuse or accidents.
- "Serious challenging behaviors" include property damage, attempts at self-inflicted harm or harm to others, or unauthorized leaves of absence.
- "Medication Errors" mean a) wrong medication; b) wrong dosage; c) double dosage; or d) missed dosage. It does not include instances in which consumers have refused medication.

Notes

- 1. Reporting is **required** for Medicaid beneficiaries who, at the time of the event, were the responsibility of the CMHSP and were enrolled in the Children's Waiver.
- 2. Accidents treated at medi-centers and urgent care clinics/centers should be included in the injury reporting along with those treated in emergency rooms. In many communities in the state

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where hospitals do not exist, medi-centers and urgent care clinics/centers are used in place of emergency rooms.

- 3. Planned surgeries, whether outpatient or inpatient, are not considered unexpected occurrences and therefore are not included in the reporting of illnesses requiring admissions to hospitals.
- 4. Report arrests and convictions as separate incidents.
- 5. All arrests and convictions should be report as a sentinel event so long as the person falls in the reportable population.

OUTCOMES: DEATH REPORT/D.D. (CMHSP only)

Indicator # 15

Number of suicides per thousand persons served during the 12-month period.

Rationale for Use

Mortality rates are commonly used as global measures of health status for populations. There are indications that persons with mental illness die at higher rates and at younger ages from nearly all causes, natural as well as homicide, suicide, accidents and injuries. This measure addresses the single measure of suicide.

Table 10 a. Persons with Developmental Disabilities

# DEATHS THIS PERIOD PERSONS WITH DEVELOPMENTAL DISABILITIES AGE:					
1. Cause of Death	2. 18 & Under	3. 19-35	4. 36-60	5. 61+	
1. Suicide					
2. Homicide					
3. "Natural Causes"					
DEATHS BY ACCIDENT:					
4. While Under Program Supervision					
5. Not under Program Supervision					
6.TOTAL DEATHS					
7. Pending Autopsy or Report					

Definitions

"Natural Causes" means deaths occurring as a result of a disease process in which death is one anticipated outcome.

Instructions

- 1. Reporting is **required** for CMHSP consumers who, at the time of their deaths, were the responsibility of the CMHSP and 1) living in 24-hour Specialized Residential settings (per the Administrative Rule R330.1801-09 or in Child-Caring Institutions; or 2) living in their own homes receiving Community Living Supports; or 3) receiving Targeted Case Management, ACT, Home-Based, Wraparound or Habilitation Supports Waiver Services; and 4) ALL SUICIDES of consumers who were active cases known to the CMHSP.
- 2. Enter deaths that occurred during the time period by age for persons with developmental disabilities only.
- 3. For all deaths due to "natural causes", indicate on Table 10B the nature of the cause.
- 4. For all deaths occurring in this period for which autopsies are pending, enter the numbers in Row 7. NEITHER THESE DEATHS NOR THEIR CAUSES WILL BE COUNTED DURING ANY SUBSEQUENT

PERIOD.

DEATH BY NATURAL CAUSES - PERSONS WITH DEVELOPMENTAL DISABILITIES Table 10b.

1. Cause of Death	2. 18 &	3. 19 - 35	4. 36-60	5. 61+
	Under			
1. Heart disease				
2. Pneumonia/ influenza		S		
3. Aspiration or Aspiration pneumonia				
4. Lung disease				
5. Vascular disease				
6. Cancer				
7. Diabetes mellitus				
8. Endocrine disorders				
9. Neurological disorders				
10. Acute bowel disease				
11. Liver disease/cirrhosis				
12. Kidney disease				
13. Infection, including AIDS				
14. Inanition				
15. Complication of treatment *				
16. Unknown or unreported				
17. TOTAL DEATHS BY NATURAL CAUSES				

Instructions

For all deaths listed on Table 10A for which the cause of death is "natural," please enter the numbers of deaths by **specific cause** in the table above.

Definitions: See Attachment A

DEATH REPORT/MI

Table 10c. Persons with Mental Illness

# DEATHS THIS PERIOD PERSONS WITH MENTAL ILLNESS AGE:								
1. Cause of Death	2. 18 & Under	3. 19-35	4. 36-60	5. 61+				
1. Suicide								
2. Homicide								
3. "Natural Causes"								
DEATHS BY ACCIDENT:								
4. While Under Program Supervision								
5. Not under Program Supervision								
6.TOTAL DEATHS								
7. Pending Autopsy or Report								

Definitions

Instructions

- 1. Reporting is **required** for CMHSP consumers who, at the time of their deaths, were the responsibility of the CMHSP and 1) living in 24-hour Specialized Residential settings (per the Administrative Rule R330.1801-09 or in Child-Caring Institutions; 2) living in their own homes receiving Community Living Supports; 3) receiving Targeted Case Management, ACT, Home-Based, Wraparound or Habilitation Supports Waiver Services; or 4) ALL SUICIDES of consumers who were active cases known to the CMHSP.
- 2. Enter deaths that occurred during the time period by age for persons with mental illness only.
- 3. For all deaths due to "natural causes", indicate on Table 10D the nature of the cause.
- 4. For all deaths occurring in this period for which autopsies are pending, enter the numbers in Row 7. NEITHER THESE DEATHS NOR THEIR CAUSES WILL BE COUNTED DURING ANY SUBSEQUENT PERIOD.

[&]quot;Natural Causes" means deaths occurring as a result of a disease process in which death is one anticipated outcome.

DEATH BY NATURAL CAUSES - PERSONS WITH MENTAL ILLNESS

Table 10d.

1. Cause of Death	2. 18 & Under	3. 19 - 35	4. 36-60	5. 61+
1. Heart disease				
2. Pneumonia/ influenza				
3. Aspiration or Aspiration pneumonia				
4. Lung disease				
5. Vascular disease				
6. Cancer				
7. Diabetes mellitus				
8. Endocrine disorders				
9. Neurological disorders				
10. Acute bowel disease				!
11. Liver disease/cirrhosis				
12. Kidney disease				
13. Infection, including AIDS				
14. Inanition				
15. Complication of treatment *			-	
16. Unknown or unreported				
17. TOTAL DEATHS BY NATURAL CAUSES				

Instructions

For all deaths listed on Table 10C for which the cause of death is "natural", please enter the numbers of deaths by **specific cause** in the table above.

Definitions: See Attachment A

Attachment A: Definitions of Causes of Death

<u>Heart disease</u> means any acute, chronic, or congenital condition of the muscle, valves, or covering of the heart unless such condition is directly related to another disease or condition listed below. Examples are myocardial infarction, pericarditis, myocarditis, valvular disease, congenital heart disease, congestive failure, and cardiac arrest not otherwise explained.

Note: Cardiac arrest is the mechanism of death for all causes; therefore, this category should not be used whenever an underlying condition has been identified.

Pneumonia/influenza means any inflammatory process of the lungs not due to aspiration.

<u>Aspiration</u> means either asphyxia or pneumonia resulting from the inhalation of foreign material into the respiratory tract. This can be food, stomach contents, or a foreign body.

<u>Lung disease</u> means any acute or chronic, non-infectious process of the lung or respiratory tract. Examples are COPD, pulmonary fibrosis, asthma, obstructive airway disease, and spontaneous pneumothorax.

<u>Vascular disease</u> means any obstruction of or bleeding from a major blood vessel into a vital organ unless related to Diabetes mellitus or cirrhosis. Examples are stroke, aneurism, CVA, pulmonary embolus, hypertension, atherosclerotic heart disease (ASHD).

Cancer means either primary or metastatic carcinoma, sarcoma, lymphoma, or leukemia.

<u>Diabetes mellitus</u> includes any complication or condition due to hyperglycemia. This diagnosis, if present, takes preeminence over any other natural cause of death.

<u>Endocrine disorders</u> includes inborn errors of metabolism and glycogen storage diseases, as well as diseases of the hypothalamus, pituitary, or other endocrine gland. Examples are Diabetes insipidus, Grave's Disease, Cushing's Disease, Addison's Disease, San Fillipo's Disease.

<u>Neurological disorders</u> means any disease or condition of the brain or spinal cord such as complications of seizures, Huntington's Disease, metachromatic leukodystrophy, neurofibromatosis, amyotrophic lateral sclerosis. In the case of a dementia such as Alzheimer's Disease, cite the actual cause of death, e.g., pneumonia.

<u>Acute bowel disease</u> means any inflammatory or mechanical condition of the gastrointestinal tract or peritoneal cavity. Examples are bowel obstruction, perforation, strangulation, volvulus, ruptured appendix, peritonitis, and pancreatitis, GI bleeding. Do not use this category if related to cirrhosis.

<u>Liver disease / cirrhosis</u> means hepatic failure associated with either an infectious, toxic, or degenerative process of the liver and includes acute esophageal bleeding associated with cirrhosis.

Kidney disease means renal failure of all causes except that due to diabetes, hypertension, or trauma.

<u>Infection</u> means an overwhelming systemic infectious process such as meningitis, AIDS, sepsis, or septic shock; but does not include pneumonia, influenza, or hepatitis.

<u>Inanition</u> means the chronic debilitation and general systems failure associated with complex multiple disabilities, especially cerebral palsy and profound mental retardation.

*Complication of treatment means an unexpected untoward reaction to medication or anesthesia,

complication of a surgical procedure, or failure of technological support equipment. Examples are neuroleptic malignant syndrome, cardiac arrest during surgery, misplaced feeding tubes, plugged tracheotomy tubes.					